CHIZHEVSKAYA, S.I., assistent

Changes in the coagulation system of the blood in anticoagulation therapy. Kaz. med. zhur. no. 2:24-27 Mr-Ap '61. (MIRA 14:4)

1. Kafedra terapii (zav. - prof. L.M. Rakhlin) Kazanskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey imeni V.I. Lenina.
(BLOOD—COAGULATION) (ARTERIOSCLEROSIS)
(ANTICOAGULANTS (MEDICINE))

SOV/137-58-11-23301

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 208 (USSR)

AUTHORS: Sirota, N. N., Chizhevskaya, S. N.

TITLE: Characteristic Temperatures of Mg_2Si, Mg_2Sn, and Si (Kharakteristicheskiye temperatury Mg_2Si, Mg_2Sn i Si)

PERIODICAL: Sb. nauchn. tr. Mosk. in-t tsvetn. met. i zolota, Nauchn.-tekhn. o-vo tsvetn. metallurgii, 1957, Nr 30, pp 175-191

ABSTRACT: The characteristic temperatures θ, the rates of propogation of longitudinal (ld) ultra sonic waves V_{ld}, the modulus of elasticity E, and the microhardness of Si, Mg_2Si, and Mg_2Sn were determined experimentally. The compounds were obtained by the direct smelting of the components in a resistance furnace. θ was determined by X-ray diffraction from the ratio of the intensities of one line at two different temperatures. V_{ld} and E were measured on an ultrasonic flaw detector UZD-7N. Microhardness was determined with a PMT-3 apparatus. For Si: $\alpha \cdot 10^6 = 4.58$, $\theta = 758^\circ K$, $V_{ld} \cdot 10^{-5} = 4.82$ cm/sec, $E = 5910$ kg/mm^2; for Mg_2Si: 14.8, $398^\circ K$, 5.32, and 5430 respectively; for Mg_2Sn: 22, $206^\circ K$, 2.63, and 3940. θ calculated by means of the coefficient of linear expansion agree well with the experimental values,

Card 1/2

SOV/137-58-11-23301

Characteristic Temperatures of Mg_2Si, Mg_2Sn, and Si

whereas those calculated by Lindemann's formula give incorrect values.

G. L.

Card 2/2

5.4110
5.2610

67292

SOV/180-59-4-25/48

AUTHORS: Glazov, V.M., Petrov, D.A. and Chizhevskaya, S.N. (Moscow)

TITLE: The Joint Solubility of Elements of Groups Three and Five in Germanium

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 4, pp 153-155 (USSR)

ABSTRACT: Pure germanium, AlSb, GaSb and InSb were used. Ge-GaSb and Ge-InSb alloys were prepared in an evacuated quartz flask at 1000°C and Ge-AlSb at 1250°C. They were held for one hour with periodic stirring and then the flask was immersed in cold water. Examinations under the microscope showed that alloys of Ge with up to 3 wt% AlSb, 2.5 wt % GaSb or 0.5 wt % InSb were single-phased. Microhardness measurements were also taken to determine the limiting solubility in the solid state. Results are given in Table 2 and phase diagrams constructed in Fig 1, 2 and 3. Maximum solubility by this method was 3% for AlSb, 2.5% for GaSb and 0.7% for InSb. The results show that the antimonides are more soluble in germanium than the pure elements aluminium, gallium and indium. This is explained by the fact that donor and acceptor elements

Card 1/2

67271

5.4110
24.7600
~~5(1), 5(2)~~

SOV/20-129-4-43/68

AUTHORS: Glazov, V. M., Chizhevskaya, S. N.

TITLE: Resistivity to Heat of the Antimonides of Aluminum, Gallium, and Indium Dissolved in Molten Germanium

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 4, pp 869-872 (USSR)

ABSTRACT: The authors wanted to draw a conclusion on the state of the antimonides dissolved in Ge on the basis of the investigation of the intramolecular interaction in systems Ge-$A^{III}Sb$ (where A^{III} is Al, Ga, In). In references 1-4 a method for the analysis of the interaction in binary systems is described. To use this method for the solution of this task the phase diagrams of Ge-$A^{III}Sb$ and of the heat of fusion of germanium must be known. The quasi-binary systems Ge-$A^{III}Sb$ the position of which in the concentration triangle may be seen in figure 1 are described by phase diagrams eutectic type with a limited solubility in solid state. Since the solubility of Al, Ga, and In is very low in this state (Ref 6), equation (2) may be used for the corresponding calculations. Figure 2 shows the liquidus curves

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Resistivity to Heat of the Antimonides of Aluminum, Gallium, and Indium Dissolved in Molten Germanium

which correspond to the primary crystallization of germanium in this system. The calculations on the basis of (2) show that the mixing energy of aluminum antimonide with germanium is near zero. The experimentally found liquidus curve agrees practically with the calculated curve. This indicates that the solutions of aluminum antimonide in germanium are approximated to the ideal solutions. In the dissolution of gallium- and indium antimonide in germanium considerable deviations from the ideal state are observed. This is indicated by considerable divergencies of the experimentally found liquidus lines and of the lines found on the basis of equation (2) (under the assumption that $V' = 0$) (Fig 2). The mixing energy is here negative and increases with the temperature of the liquidus and with the dilution of the solution. Apparently the change of the mixing energy in the formation of solutions (Table 1) is connected with the changes of the gallium and indium anti-

SOV/20-129-4-43/68

Resistivity to Heat of the Antimonides of Aluminum, Gallium, and Indium Dissolved in Molten Germanium

monide dissociation degree according to the temperature with respect to the liquidus lines of these systems. Figure 3 shows the dependences $\ln x_{Ge} - 1/T_{liq}$ for the systems Ge-A^{III}Sb. On the basis of the above analysis the authors arrive at the conclusion that in molten germanium the aluminum antimonide dissolved in germanium at temperatures which do not exceed those of the heat of fusion of germanium does not dissociate or only to a slight degree into very weak components. The antimonides of gallium and indium however, are considerably dissociated. Their intensive dissociation begins at lower temperatures compared to pure compounds. Thus a germanium medium somewhat reduces the resistivity to heat of the dissolved compounds. This weakening effect of the germanium medium is obviously connected with its dielectric properties. The authors thank D. S. Kamenetskaya for advice. There are 4 figures, 1 table, and 11 references, 9 of which are Soviet.

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67271
SOV/20-129-4-43/68

Resistivity to Heat of the Antimonides of Aluminum, Gallium, and Indium Dissolved in Molten Germanium

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR (Institute of Metallurgy imeni A. A. Baykov of the Academy of Sciences, USSR)

PRESENTED: July 13, 1959, by G. V. Kurdyumov, Academician

SUBMITTED: June 5, 1959

Card 4/4

S/032/60/026/06/15/044
B010/B016

18.7520

AUTHORS: Glazov, V. M., Chizhevskaya, S. N.

TITLE: Determination of Temperature at the Beginning of Crystallization of Alloys by Means of the Viscosity Method

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 6, pp. 720-723

TEXT: The applicability of viscosity measurement for determining the temperature of the beginning crystallization of alloys was investigated. The measurements were performed by means of a viscosimeter which was described in a paper by D. A. Petrov and V. M. Glazov (Ref. 6). The well-known system Sb-Ge (Ref. 5) was investigated at 600-900°C in the vacuum of 10^{-3} torr. Instead of the kinematic viscosity the dependence of the logarithmic decrement (δ) of the deviations in the viscosity measurements on the temperature (Fig. 2) was determined. The physical behavior of the alloy when forming the first

crystals will thus be better illustrated. In the system mentioned the increase in viscosity on transition from the one-phase to the two-phase state was not so abrupt as was observed by Ye. G. Shvidkovskiy and L. S. Priss (Ref. 1) in Bi-Pb alloys. The liquidus line for the system Sn-SiC was drawn by the method described (Fig. 5). The dependence curves δ, t (Fig. 4) (t = temperature) show that δ is much higher for the Sn-SiC alloys than for pure Sn. The dependence curves δ, t at different SiC content vary, which is due to a transition from the one-phase to the two-phase state. There are 5 figures and 6 references: 5 Soviet and 1 American.

ASSOCIATION: Institut metallurgii Akademii nauk SSSR
(Institute of Metallurgy of the Academy of Sciences USSR)

GLAZOV, V.M. (Moskva); CHIZHEVSKAYA, S.N. (Moskva)

Connection between the properties of certain semiconducting chemical compounds in solid and liquid states. Izv. AN. SSSR. Otd. tekh. nauk. Met. i topl. no.3:154-157 My-Je '61. (MIRA 14:7)
(Semiconductors)

28087 S/181/61/003/009/021/039
B102/B104

24.7700 (1144, 1160, 1164)

AUTHORS: Glazov, V. M., and Chizhevskaya, S. N.

TITLE: Study of the electric conductivity of germanium and of the $A^{III}Sb$ compounds in the melting range and in the liquid phase

PERIODICAL: Fizika tverdogo tela, v. 3, no. 9, 1961, 2694 - 2698

TEXT: The nature of the change of the chemical bonds on melting germanium and the $A^{III}Sb$ compounds has hitherto been insufficiently studied and the conclusions drawn by different authors diverge. Thus, e. g., A. R. Regel' assumed that on melting the three-dimensional system of the solid homeopolar bonds is destroyed. T. A. Kontorova observed that on melting not the nature of the bonds is changed but only the valence bridges loose their rigid spatial orientation. In a previous paper V. M. Glazov found that on melting the rigidly oriented bonds are often conserved and are destroyed only when the temperature is further increased. In this case new electron configurations are then formed. To give a definite explanation of these phenomena the authors measured the temperature dependence of the electric conductivity of Ge, AlSb, and GaSb, and InSb on melting and in the liquid phase. The

Study of the electric conductivity...

specimens were produced from single crystals; the total impurity concentration did not exceed 10^{-3} - 10^{-4}%. The $\sigma(t)$ curves of all specimens showed a similar course: σ was constant up to the melting point where it suddenly steeply rose to a multiple (3 - 5) of its value and after which it slightly decreased again. Only in InSb σ slightly increased already before the melting point was attained. As soon as the melting point was attained it increased jump-like and on further heating it decreased somewhat more rapidly than in the other semiconductors studied here. In all cases the weak decrease of σ was observed approximately 10 - 20°C after the melting point was attained. The absolute values of σ of the molten semiconductors indicated a regular change in the sequence Ge - InSb - GaSb - AlSb. These results permit definite conclusions on the change of the bond character. As was assumed already by Regel', the rigid homoeopolar bonds are destroyed on melting. This destruction is, however, incomplete. On further heating, the bonds were completely destroyed (which is proved by the further, although weak, increase of σ after the melting). For InSb this second stage is limited to a very narrow temperature range. This is due to the fact that InSb has a metallic bond character already in the solid phase. The assumption of the fundamental change of the bond character on melting was verified by measuring $\sigma(t)$ on cooling. It was found that the $\sigma(t)$ curves

28087 S/181/61/003/009/021/039
B102/E104

Study of the electric conductivity...

were irreversible which proved the radical change of the bond character. There are 4 figures and 12 references: 11 Soviet and 1 non-Soviet.

ASSOCIATION: Institut metallurgii im. A. A. Baykova AN SSSR Moskva
(Institute of Metallurgy imeni A. A. Baykova AS USSR, Moscow)

SUBMITTED: April 20, 1961

Card 3/3

S/078/62/007/008/004/008
B101/B138

AUTHORS: Chizhevskaya, S. N., Glazov, V. M.

TITLE: Investigation into the gallium - tellurium interaction in molten state

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 8, 1962, 1933-1937

TEXT: To study molecular interaction in the liquid Ge - Te system, the viscosity and electrical conductivity of melts containing 33 - 75 atom% Te were measured as a function of temperature between 750 and 1300°C. Results: (1) The compound GaTe, and alloys in its primary crystallization range (group I), have continuously decreasing viscosity and almost linearly rising conductivity. (2) The viscosity of Ga_2Te_3 and neighboring alloys (group II), however, showed 60 - 80°C above melting point. (3) The conductivity of this group also increases with temperature. For Ga_2Te_3 in the solid state it increases exponentially rapidly at melting point and slowly above it, becoming almost independent of

Card 1/2

3 3961

S/020/62/145/001/015/018
B145/B101

54,00

AUTHORS: Chizhevskaya, S. N., and Glazov, V. M.

TITLE: Study of the chemical interaction between indium and tellurium in liquid state

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 145, no. 1, 1962, 115 - 118

TEXT: The state of the system In - Te was studied at approximately 500 - 1000°C by measuring the viscosity and electrical conductivity. The viscosity of melts containing 33 - 57 % Te decreased steadily as the temperature rose, whereas the curves of 58.5 - 80 % Te showed clear viscosity maxima. The In_2Te_3 composition had the sharpest maximum. The conductivity of all the compositions increased noticeably with the temperature. The conductivity of solid In_2Te_3 increases exponentially with the temperature (the width of the forbidden band was ~1eV calculated from the inclination of the straight line in the log σ-1/T diagram), increases sharply between the melting point and 50 - 60°C above it, then slowly, and at more than 400°C above the melting point it increases no longer. For this composition, the increase and the decrease in viscosity correspond respectively to the

Study of the chemical interaction ...

sharp rise and the slow rise of the curve. The isothermal lines in the composition - conductivity and composition - viscosity diagrams show two distinct minima or maxima, respectively: a singular one for In_2Te_3 and a non-singular one for approximately InTe (slightly displaced in the direction of Te excess). This shows that the compound In_2Te_3 is very stable in its liquid state after melting and does not become partially dissociated until high temperatures are reached. The compound InTe partially dissociates just above its melting point. In In_2Te_3, homeopolar bonds among the atoms are not affected by melting. The increase in conductivity in the range m.p.-(m.p. + 50 - 60°C) might be due to a rearrangement of structural elements in the melt on the principle of close packing. A eutectic in the phase diagram corresponds to the low viscosity minimum, which is explained by a slight interaction between In_2Te_3 and the products that result from the dissociation of InTe. There are 4 figures. The most important English-language reference is: F. Filding, G. Fischer, E. Mooser, Phys. and Chem. of Solids, 8, 434 (1959).

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Institute of Metallurgy imeni A. A. Baykov)

Card 2/3

GLAZOV, V.M.; CHIZHEVSKAYA, S.N.

Some physical properties of gallium arsenide and indium arsenide in the region of melting and the fluid state. Fiz.tver.tela 4 no.7:1841-1845 Jl '62. (MIRA 16:6)

1. Institut metallurgii imeni A.A.Baykova, Moskva.
(Gallium arsenide) (Indium arsenide)

CHIZHEVSKAYA, S.N.; GLAZOV, V.M.

Interaction of gallium with tellurium in the fused state. Zhur. neorg. khim. 7 no.8:1933-1937 Ag '62. (MIRA 16:6)

(Gallium-tellurium alloys)

Morphological features of crystals of GaP. G. V. Averkiyeva, A. S. Borshchevskiy, G. K. Kalyuzhnaya, A. D. Smirnova, D. N. Tret'yakov, N. N. Takhtareva (10 minutes).

Features of the growth of crystals of silicon carbide of the cubic modification from the gaseous phase. A. A. Pletyushkin, S. N. Gorin, L. M. Ivanova (10 minutes).

Investigation of the physical properties of semiconducting compounds with the lattice of ZnS and NaCl in the melting region and liquid state. V. M. Glazov, S. N. Chizhevskaya, N. N. Glagoleva (10 minutes).

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

ACCESSION NR: AP4039654

S/0181/64/006/006/1684/1687

AUTHORS: Glazov, V. M.; Chizhevskaya, S. N.

TITLE: A study of the magnetic susceptibility of germanium silicon and compounds with ZnS lattices in the regime of fusion and in liquid state

SOURCE: Fizika tverdogo tela, v. 6, no. 6, 1964, 1684-1687

TOPIC TAGS: magnetic susceptibility, germanium, silicon, gallium, indium, tellurium, calcium, quartz ampule, corundum container, argon, helium, platinum rhodium thermocouple, diamagnetic property

ABSTRACT: The authors studied the magnetic susceptibilities of Ge, Si, GaSb, InSb, GaAs, InAs, ZnTe, CaTe, Ga_2Te_3 and In_2Te_3 in the fusion regime and in the liquid state by the Faraday method described by A. A. Vertman and A. M Samarin (Zav. lab., 24, 309, 1958). Ge, Si and Sb, Ga and In were monocrystalline with carrier concentrations ranging from 10^{14} to $10^{16}/cm^3$. All other compounds were macrocrystalline with the percentage of impurities less than 10^{-4}. Each of the specimens of Ge, GaSb, InSb, GaAs, InAs, Ga_2Te_3 (diameter of 12 mm and a height of 10 mm) was placed in a quartz ampule. Silicon specimens (10 mm in diameter and 8 mm high) were placed in corundum containers. The measurements were taken in an atmosphere of argon for

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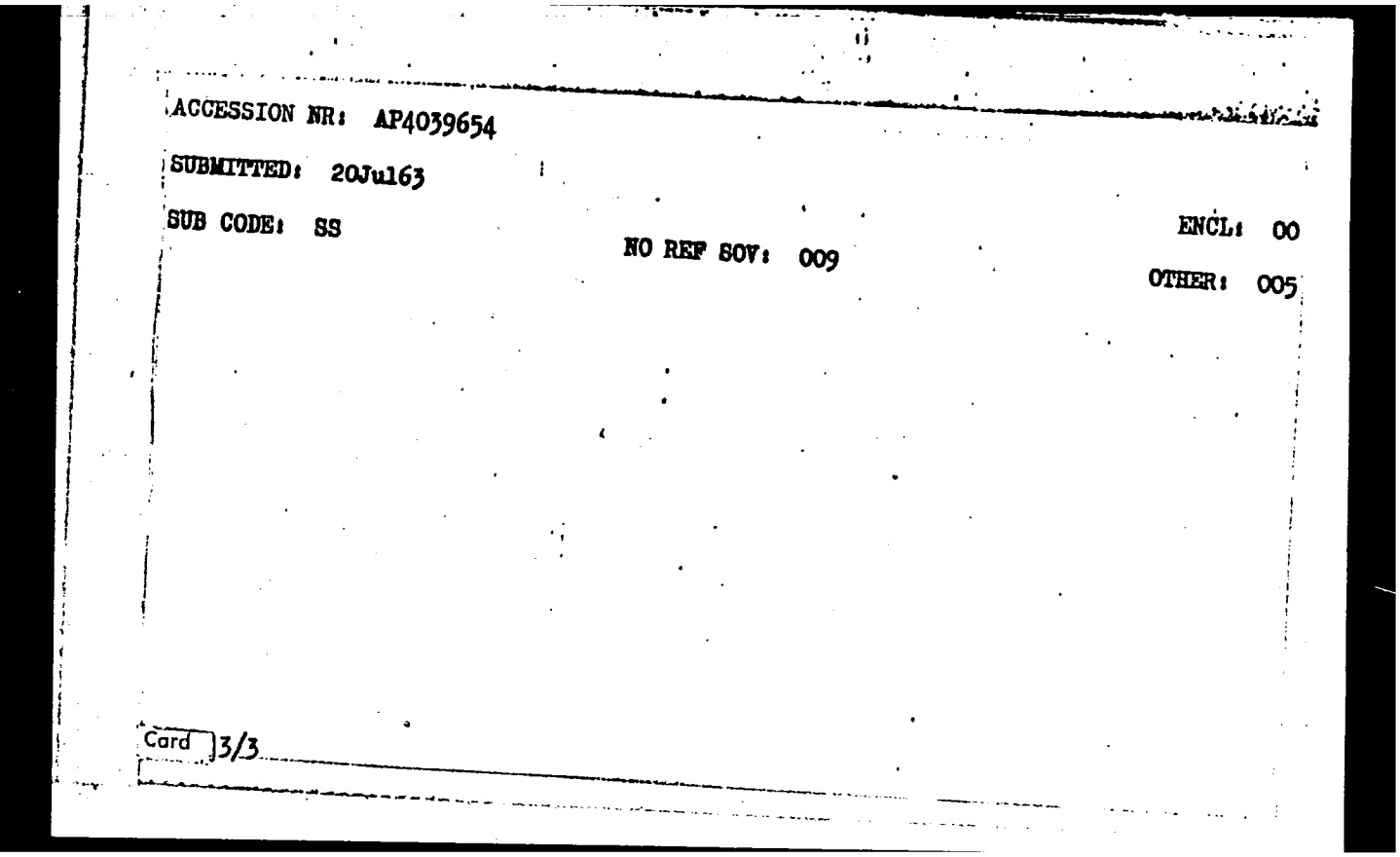
ACCESSION NR: AP4039654

Ge and other compounds, while a helium atmosphere was used for Si. The magnetic field used was 5000 oersteds. Temperatures were measured by Pt-Rh-Pt thermocouples. The experiments showed that all the materials had diamagnetic properties in both the solid and liquid states. At the time of fusion a discontinuous fall in the permeability was observed in all the cases. On the basis of the magnitude of this discontinuity at the temperature of fusion and the nature of the temperature dependence of the permeability, it is possible to classify these substances into two groups. In the first group were Ge, Si, and compounds of the type $A^{III}B^{V}$. At the time of fusion the magnetic susceptibility of these substances decreased by 20 to 30%, and on further heating of the melt it tended to increase. The second group consisted of tellurides of elements of the 2nd and 3rd group of the periodic table. For these substances the susceptibility decreased by 9 to 10% at fusion, and further heating reduced it still more. The authors thank Professor Ya. G. Dorfman for his attention to this work and his valuable advice during discussions. A. A. Vertman and Ye. S. Filippov are thanked for their help in conducting the experiments. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: Institut metallurgiy im. A. A. Baykova AN SSSR, Moscow (Institute of Metallurgy, AN SSSR)

Card 2/3



ACCESSION NR: AP4039654

SUBMITTED: 20Jul63

SUB CODE: SS

NO REF SOV: 009

ENCL: 00

OTHER: 005

Card 3/3

ACCESSION NR: AP4019501 S/0078/64/009/003/0759/0760

AUTHORS: Glazov, V.M.; Chizhevskaya, S.N.

TITLE: Viscosity and electric conductivity of copper iodide in the molten and liquid state

SOURCE: Zhurnal neorg. khimii, v. 9, no. 3, 1964, 759-760

TOPIC TAGS: copper iodide, liquid copper iodide, molten copper iodide, viscosity, electric conductivity, hysteresis, ionic bond, ionic liquid

ABSTRACT: The temperature dependences of the viscosity and of the electric conductivity of copper iodide were determined to study the change in the nature of the chemical bond and the structure of CuI_2 on fusion and further heating. The viscosity and electrical conductivity of anhydrous CuI_2 were measured in a vacuum apparatus described by D.A. Petrov and V.M. Glazov (Zavodak, laboratoriya, No. 1, 34 (1958). The measurements show a gradual decrease in the

Card 1/2

ACCESSION NR: AP4019501

viscosity, starting at the fusion temperature of the CuI_2. The electric conductivity in the solid (alpha-modification) increases gradually with temperature, then rises sharply at the melting point, and increases very slightly thereafter as the temperature of the liquid increases. There is no hysteresis in either property on cooling the melt. In view of this plus the fact that no radical changes occur in the structure of the molten CuI_2 on further heating, it is concluded that the molten copper iodide is an ionic liquid with Cu^+ and I^- as the structural units. Orig. art. has: 2 figures.

ASSOCIATION: None

SUBMITTED: 19Jul63 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: PH NO REF SOV: 004 OTHER: 004

Card 2/2

ACCESSION NR: AP4010762 S/0020/64/154/001/0193/0196

AUTHOR: Glazov, V. M.; Chizhevskaya, S. N.

TITLE: Investigation of the physical-chemical properties of zinc and cadmium telluride melts.

SOURCE: AN SSSR. Doklady*, v. 154, no. 1, 1964, 193-196

TOPIC TAGS: zinc telluride, cadmium telluride, zinc tellurium system, cadmium tellurium system, electrical conductance, viscosity, conductance isotherm, viscosity isotherm, conductivity, covalent bonding, zinc tellurium chain structure, cadmium tellurium chain structure

ABSTRACT: The electrical conductance and viscosity of Zn-Te and Cd-Te systems containing 30-70 at.% Te were studied at temperature intervals from 450-1400C and 300-1250C. The temperature-conductance curves (fig. 1) for ZnTe and CdTe compositions show low conductance in the solids, sharp increase on melting, and another sharp increase about 60C and 120C respectively, above the

Card 1/2

ACCESSION NR: AP4010762

melting temperature of the materials. Even a ± 5% deviation from the stoichiometric compositions changes the conductances and viscosities of the systems. It was found that the conductance isotherms rise very sharply from a minimum with excess Zn or Cd and rise less rapidly with excess Te; and the viscosity isotherms are at a maximum and fall with excess of either of the components. With increasingly high temperatures the maximum and minimum peaks lose their singular character and flatten out. The nature of the conductivity of these materials in transition from solid to liquid is discussed. The absence of an ionic liquid and the preservation of covalent bonding on melting is set forth. A chain structure between the Te and Zn(Cd) atoms is supported. Orig. art. has: 4 figures

ASSOCIATION: None

SUBMITTED: 28Jun63 DATE ACQ: 10Feb64 ENCL: 01

SUB CODE: ML NR REF SOV: 006 OTHER: 002

Card 2/2

L 54988-65 EPA(s)-2/EWT(m)/EPF(n)-2/T/EWP(t)/EWP(b)/EWA(c) Pt-7/Pu-4 IJP(c)
ACCESSION NR: AP5011921 JD/WW/JG UR/0363/65/001/003/0307/0310
54-43:620.183

AUTHOR: Glazov, V. M.; Chizhevskaya, S. N.

TITLE: Structural model of shortrange order in melts of germanium and silicon

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 3, 1965, 307-310

TOPIC TAGS: structural evaluation, germanium, silicon, ordered structure, crystal growth

ABSTRACT: Change in electron mobility during transition process from the solid to the liquid phase was determined by measuring electrical conductance of Ge-Si melts as a function of temperature and on the basis of a Ge-Si melt model. The Ge-Si melt model was defined by means of comparing the number of atoms in a cm^3 as calculated from experimentally determined viscosity of the germanium melt using x-ray data on interatomic distances and coordination number of germanium at 1000°C. The number of atoms (N_1) in a cm^3 according to the melt model, is equal to 6.6×10^{22}. The number of atoms in one cm^3 (N), determined from data on melt viscosity, is equal to $4.56 \cdot 10^{22}$. Comparison of N_1 with N indicates that the structure of short range

Card 1/2

L 54988-65

ACCESSION NR: AP5011921

order in both germanium and silicon melts is a diffuse space-centered cubic. At 1000°C, the concentration of electrons in germanium and silicon melts is $1.80 \cdot 10^{23}$ cm^{-3} and $2.16 \cdot 10^{23}$ cm^{-3} respectively. At 1000°C, the electron mobility in solid phases of [illegible] cm^2/volt/sec and 16 cm^2/volt/sec and in liquid phases of [illegible] and [illegible] cm^2/volt/sec, respectively. [illegible] conductance [illegible] calculated on the basis of [illegible] agree [illegible] with the experimental data. [illegible] Abrikosov and [illegible] for reading the manuscript and [illegible] discussion. [illegible] 2 tables and 7 formulas.

ASSOCIATION: [illegible] splavov (Institute of Steel and Alloys); [illegible] Institute of Metallurgy)

SUBMITTED: [illegible] ENCL: 00

NO REF SOV: [illegible] OTHER: 012

Card 2/2

L 00633-67 EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) RDW/JD

ACC NR: AR6017810 SOURCE CODE: UR/0058/66/000/001/E043/E043

AUTHORS: Lange, V. N.; Lange, T. I.; Titov, V. A.; Chizhevskaya, S. N.

TITLE: Influence of slight indium impurities on the physicochemical properties of selenium

SOURCE: Ref. zh. Fizika, Abs. 1E328

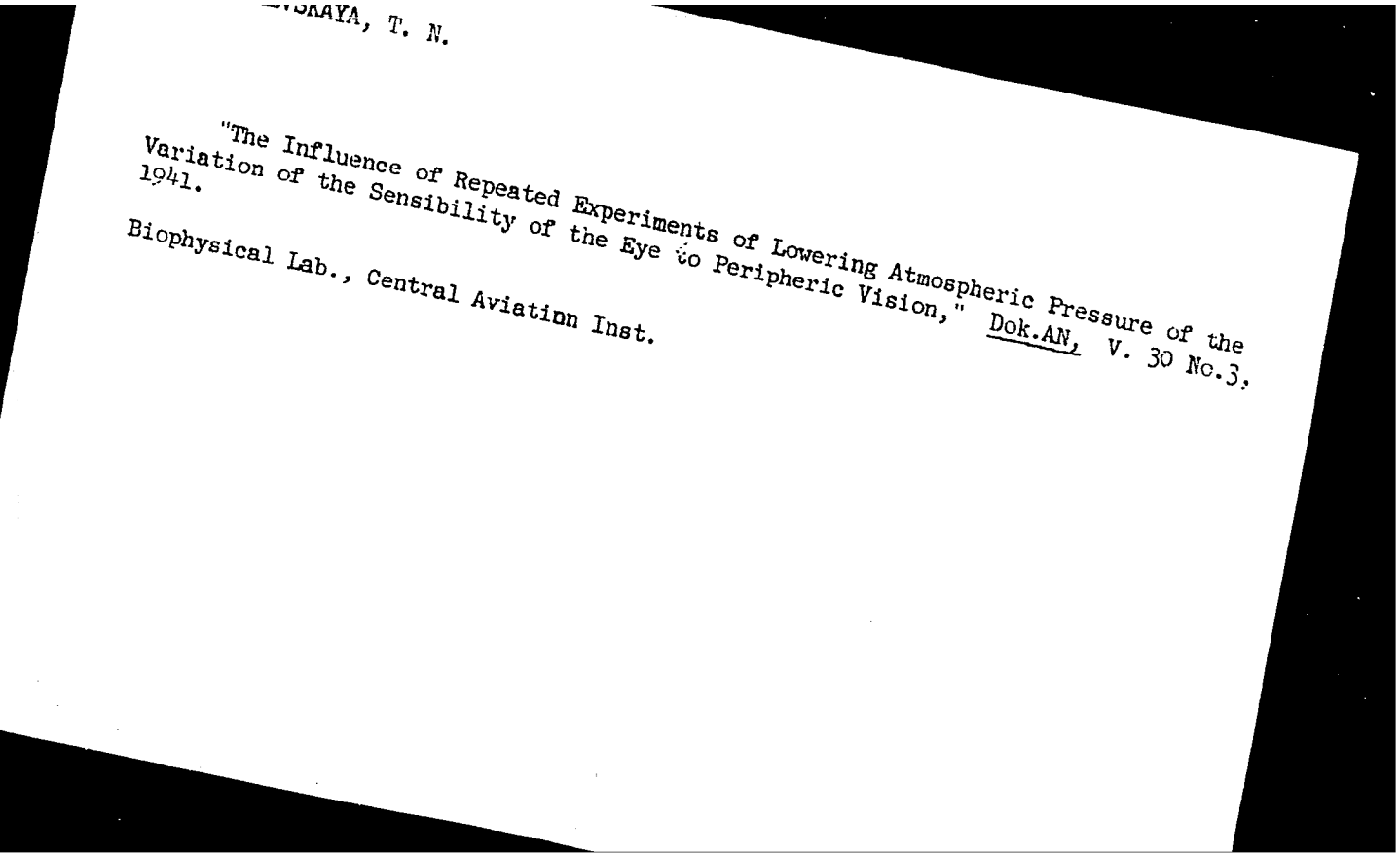
REF SOURCE: Sb. Materialy dokl. 1-y Nauchno-tekhn. konferentsii Kishinevsk. politekhn. in-ta. Kishinev, 1965, 70

TOPIC TAGS: selenium, indium, thermal expansion, solid solution, crystal impurity, impurity center, physical chemistry property

ABSTRACT: To clarify the question whether the impurity atoms in Se are actually grouped together, measurements were made of the density, and coefficient of thermal expansion of alloys of the Se-In system, and also the viscosity of the corresponding melts. It is established that the variation of these properties with increasing In concentration is a complicated one. The data obtained, in the opinion of the authors, confirm the hypothesis that groups of In atoms are formed, and also indicate that the atoms (complexes) of In arrange themselves in chains made up of selenium atoms, and do not dispose themselves between them. [Translation of abstract]

SUB CODE: 20, 11

Card 1/1 pb



...SKAYA, T. N.

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Biophysical Lab., Central Aviation Inst.

CHIZHEVSKAYA, Z. A.

"A Comparative Study of Photosynthetic Activity in Male and Female Hemp Plants." Botan. No. 5, Trudy Botan. Inst. Acad. Sci. USSR, Ser. IV. 72-86, 1941

CHIZHEVSKAYA, Z.A.; NATAROVA, N.V., redaktor; KIRNARSKAYA, A.A., tekhnicheskiy redaktor.

[Practical work in general botany; textbook for pedagogical and teachers' institutes] Praktikum po obshchei botanike; posobie dlia pedagogicheskikh i uchitel'skikh institutov. Izd. 2-e, ispr. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1953. 389 p. (MLRA 8:2)
(Botany--Study and teaching)

CHIZHEVSKAYA, Z. A.

7522 CHIZHEVSKAYA, Z. A.

KONTROL'NYYE RABOTY PO FIZIOLOGII RASTENIY S OSNOVAMI MIKROBIOLOGII. DLYA STUDENTOV-ZAOCHNIKOV IV SURSA FAK.YESTESTVOZ-NANIYA PED. IN-TOV. 2ye 12D., I S PR. M., UCHPEDGIZ, 1955. 40 s. 19 sm. (GLAV. UPR. PROD. GOTOVKI UCHITELEY M-VA PROSVESHCRTEN'YA RSFSR. NAUCH. METOD. KABINET PO ZAOCH. OBUCHENIYU UCHITELEY). 6.000 EKZ. 60K.--(55-3589) 581.1 + 576.8) (071.4)

CHIZHEVSKAYA, Z.Ya., nauchnyy sotrudnik

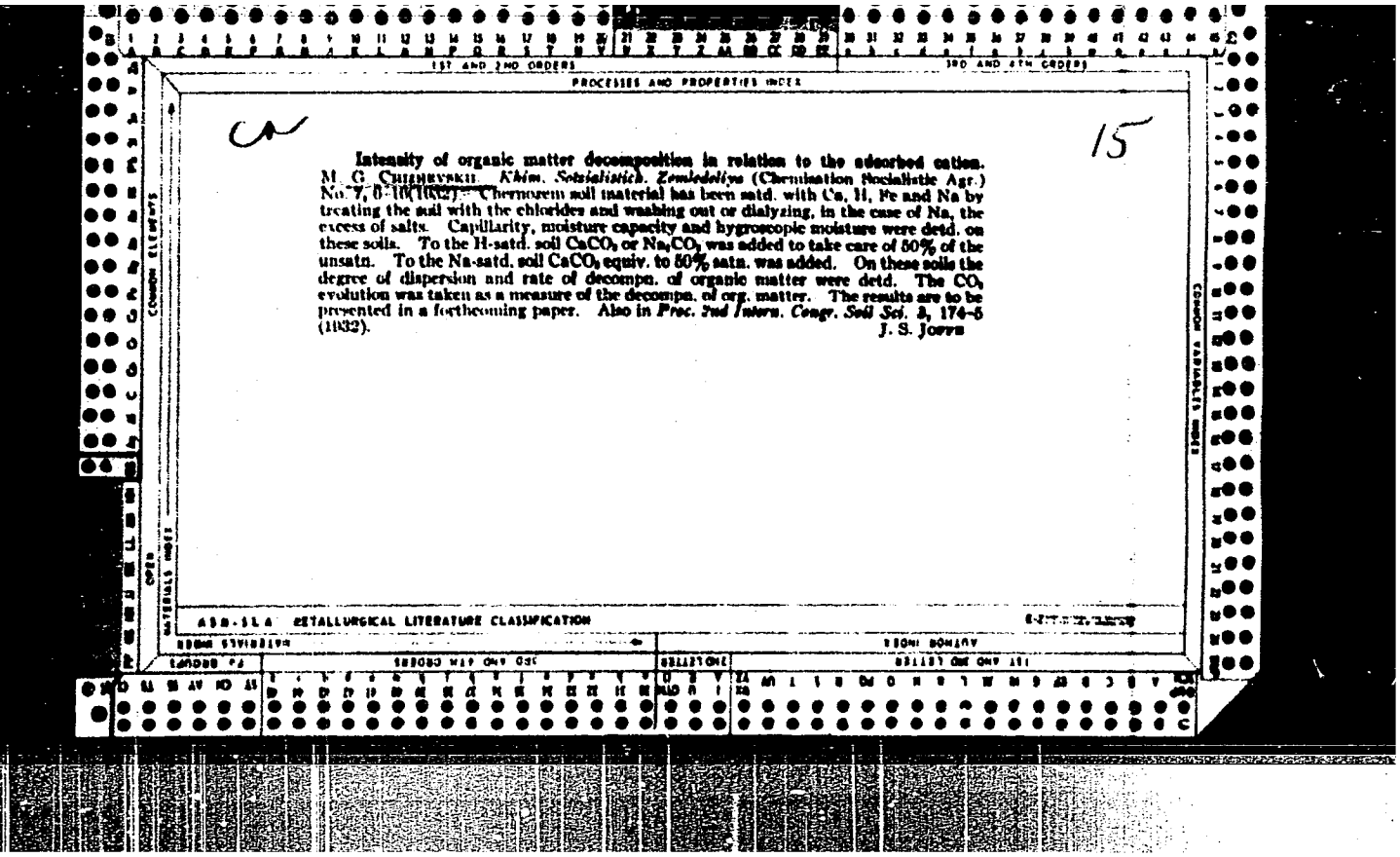
Unit for thermal disinfection of seeds. Zashch. rast. ot vred. i bol. 7 no.3:21 Mr 62. (MIRA 15:11)

1. Laboratoriya zashchity rasteniy Tatarskoy respublikanskoy sel'skokhozyaystvennoy opytnoy stantsii.
(Tatar A.S.S.R.--Seeds--Disinfection)

LOBANOV, P.; LOZA, G.; CHIZHEVSKIY, M.; VOROB'YEV, S.; VIL'YAMS, V.; SOBOLEV, S.; PAVLOV, G.; GARKUSHA, I.; FRAITSESSON, V.; MERSHIN, A.; PERSHINA, M.

Vladimir Petrovich Bushinskii. Zemledelie 8 no.7:94-95 Jl '60. (MIRA 13:9)

(Bushinskii, Vladimir Petrovich, 1885-1960)



1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

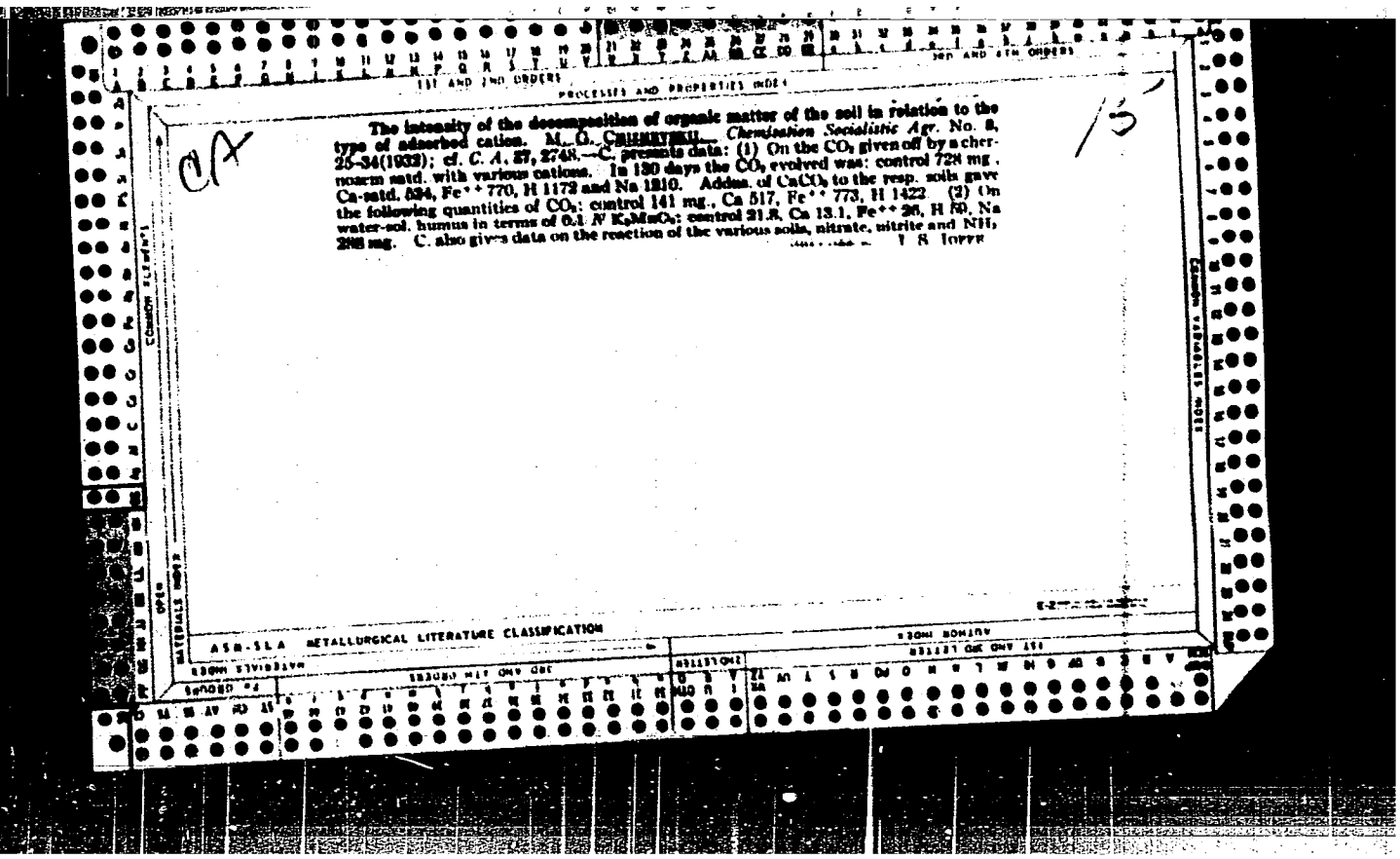
CR

15

Intensity of organic matter decomposition in relation to the adsorbed cation. M. G. Chirnevskii. *Khim. Sotsialistich. Zemledeliya* (Chemization Socialistic Agr.) No. 7, 8–10 (1932). Chernozem soil material has been satd. with Ca, H, Fe and Na by treating the soil with the chlorides and washing out or dialyzing, in the case of Na, the excess of salts. Capillarity, moisture capacity and hygroscopic moisture were detd. on these soils. To the H-satd. soil $CaCO_3$ or Na_2CO_3 was added to take care of 50% of the unsatn. To the Na-satd. soil $CaCO_3$ equiv. to 50% satn. was added. On these soils the degree of dispersion and rate of decompn. of organic matter were detd. The CO_2 evolution was taken as a measure of the decompn. of org. matter. The results are to be presented in a forthcoming paper. Also in *Proc. 2nd Intern. Congr. Soil Sci.* 3, 174–5 (1932).

J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

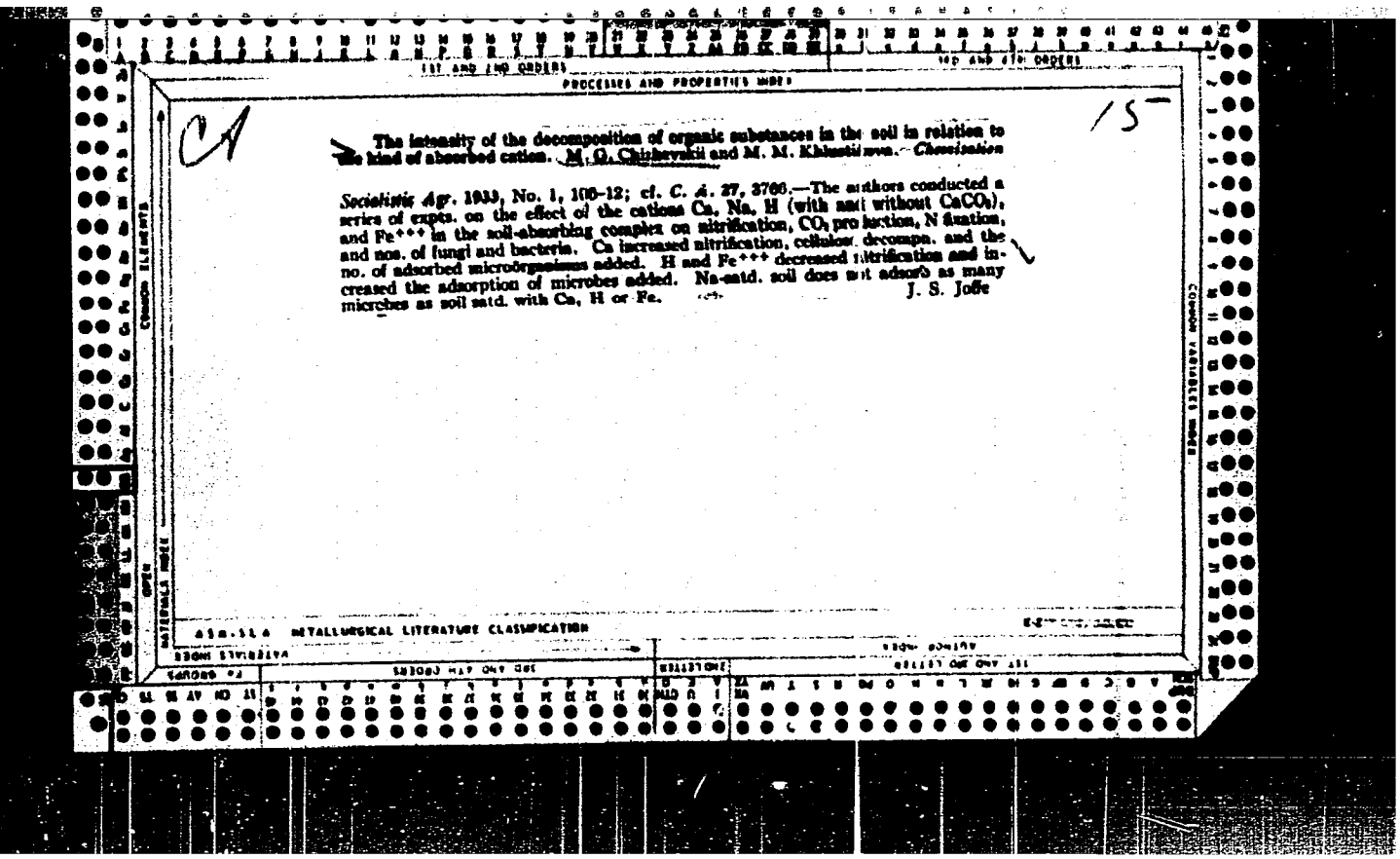


The intensity of the decomposition of organic matter of the soil in relation to the type of adsorbed cation. M. G. CHERKINSKII. *Chemization Socialistic Agr.* No. 8, 25-34(1932); cf. *C. A.* 27, 2748.—C. presents data: (1) On the CO_2 given off by a chernozem satd. with various cations. In 130 days the CO_2 evolved was: control 728 mg., Ca-satd. 894, Fe^{++} 770, H 1173 and Na 1210. Addns. of $CaCO_3$ to the resp. soils gave the following quantities of CO_2: control 141 mg., Ca 517, Fe^{++} 773, H 1422. (2) On water-sol. humus in terms of 0.1 *N* K_2MnO_4: control 21.8, Ca 13.1, Fe^{++} 26, H 59, Na 298 mg. C. also gives data on the reaction of the various soils, nitrate, nitrite and NH_3. T. S. Joffe

CA

15

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

CA

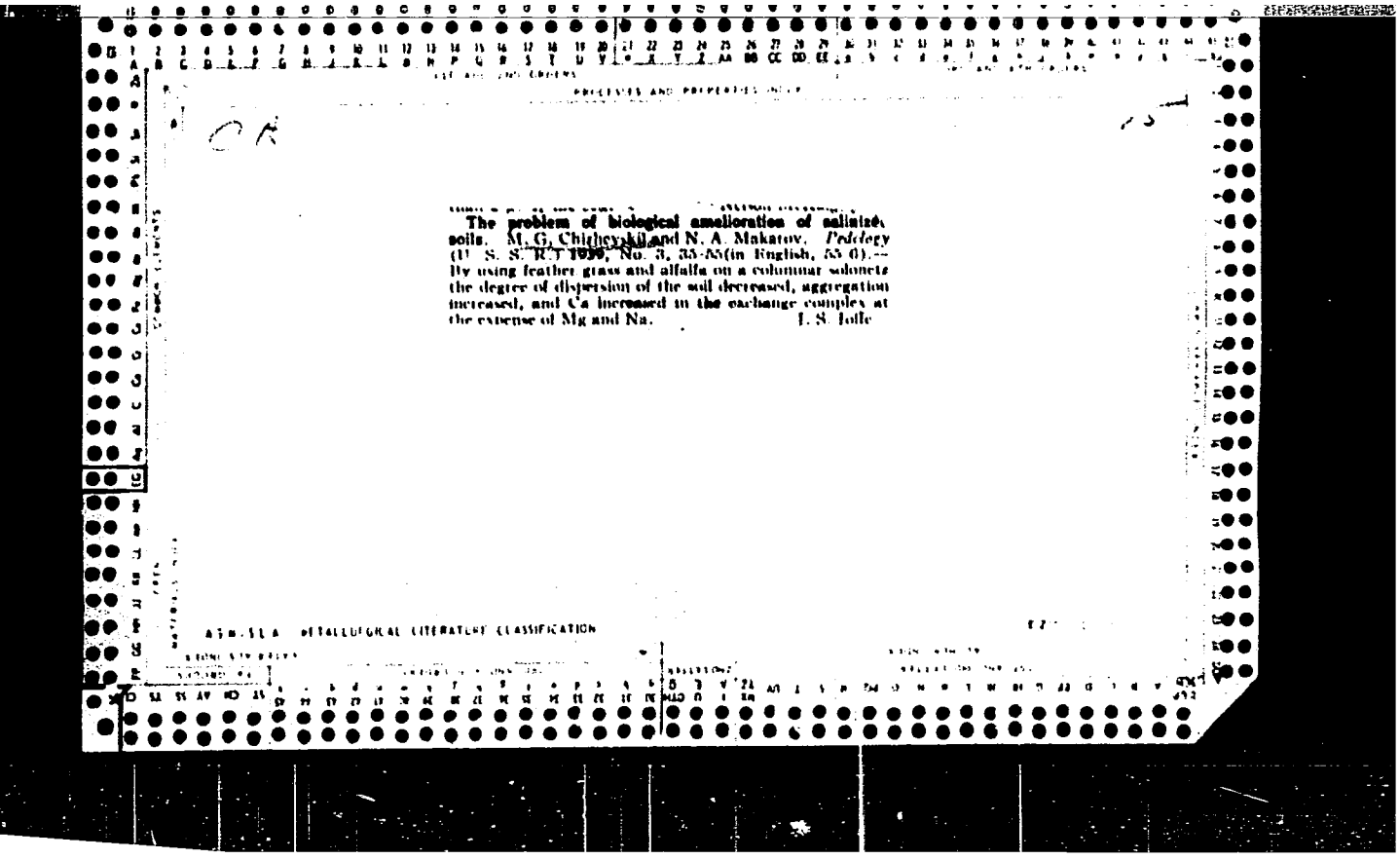
15

The intensity of the decomposition of organic substances in the soil in relation to the kind of absorbed cation. M. O. Chizhevskii and M. M. Khlustikova. *Chemization*

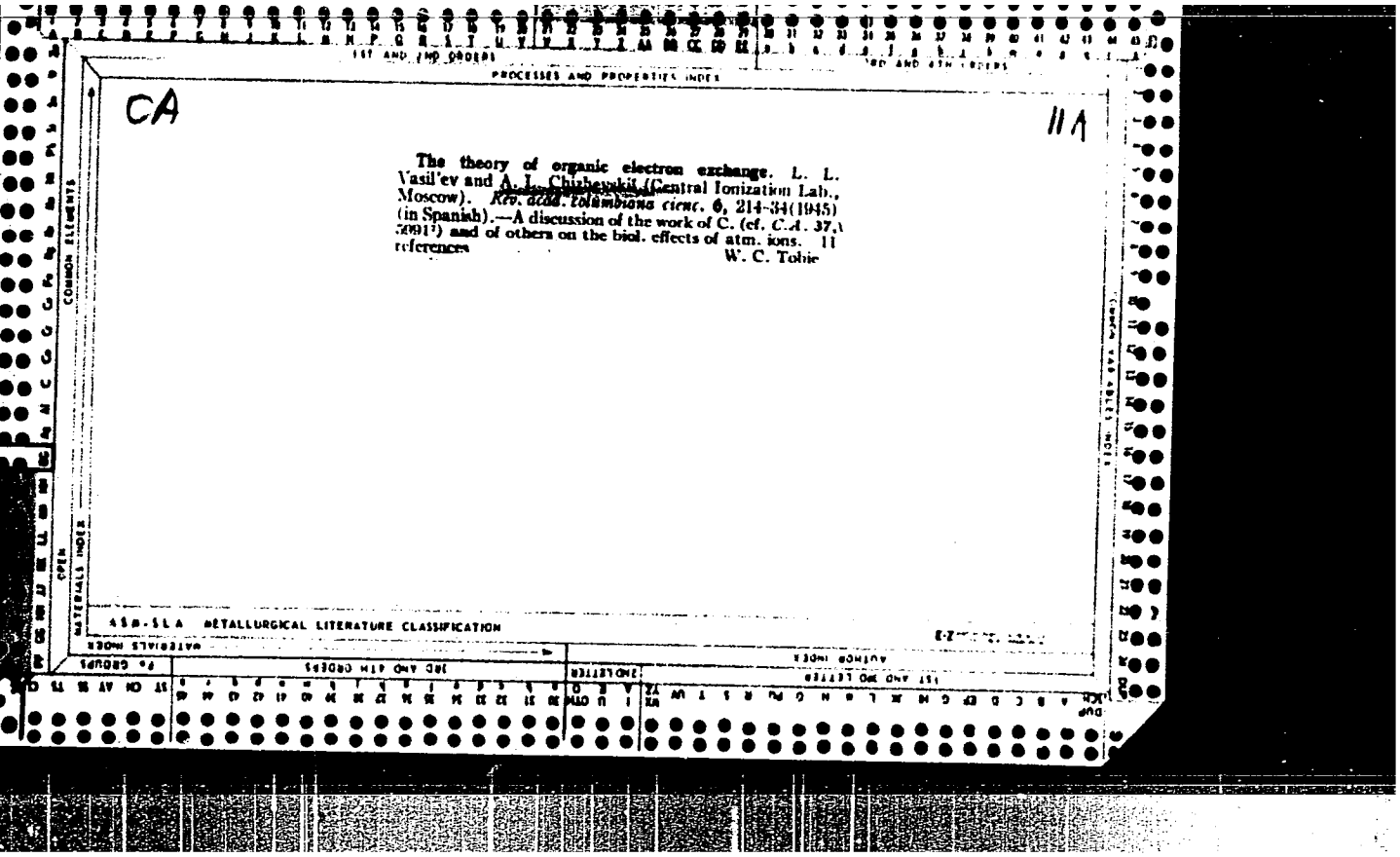
Sotsialist. Sel'. 1933, No. 1, 109-12; cf. *C. A.* 27, 3766.—The authors conducted a series of expts. on the effect of the cations Ca, Na, H (with and without $CaCO_3$), and Fe^{+++} in the soil-absorbing complex on nitrification, CO_2 production, N fixation, and nos. of fungi and bacteria. Ca increased nitrification, cellulose decompn. and the no. of adsorbed microorganisms added. H and Fe^{+++} decreased nitrification and increased the adsorption of microbes added. Na-satd. soil does not adsorb as many microbes as soil satd. with Ca, H or Fe.

J. S. Joffe

METALLURGICAL LITERATURE CLASSIFICATION



The problem of biological amelioration of salinized soils. M. G. Chighevskil and N. A. Makarov. *Pedology* (U. S. S. R.) 1939, No. 3, 35-85(in English, 55 0).—By using feather grass and alfalfa on a columnar solonetz the degree of dispersion of the soil decreased, aggregation increased, and Ca increased in the exchange complex at the expense of Mg and Na. I. S. Ioffe



CA

11A

The theory of organic electron exchange. L. L. Vasil'ev and A. L. Chizhevskii (Central Ionization Lab., Moscow). *Rev. acad. colombiana cienc.* 6, 214-34(1945) (in Spanish).—A discussion of the work of C. (cf. *C.A.* 37, 5091[3]) and of others on the biol. effects of atm. ions. 11 references

W. C. Tobie

IZHEVSKIY, A-L.

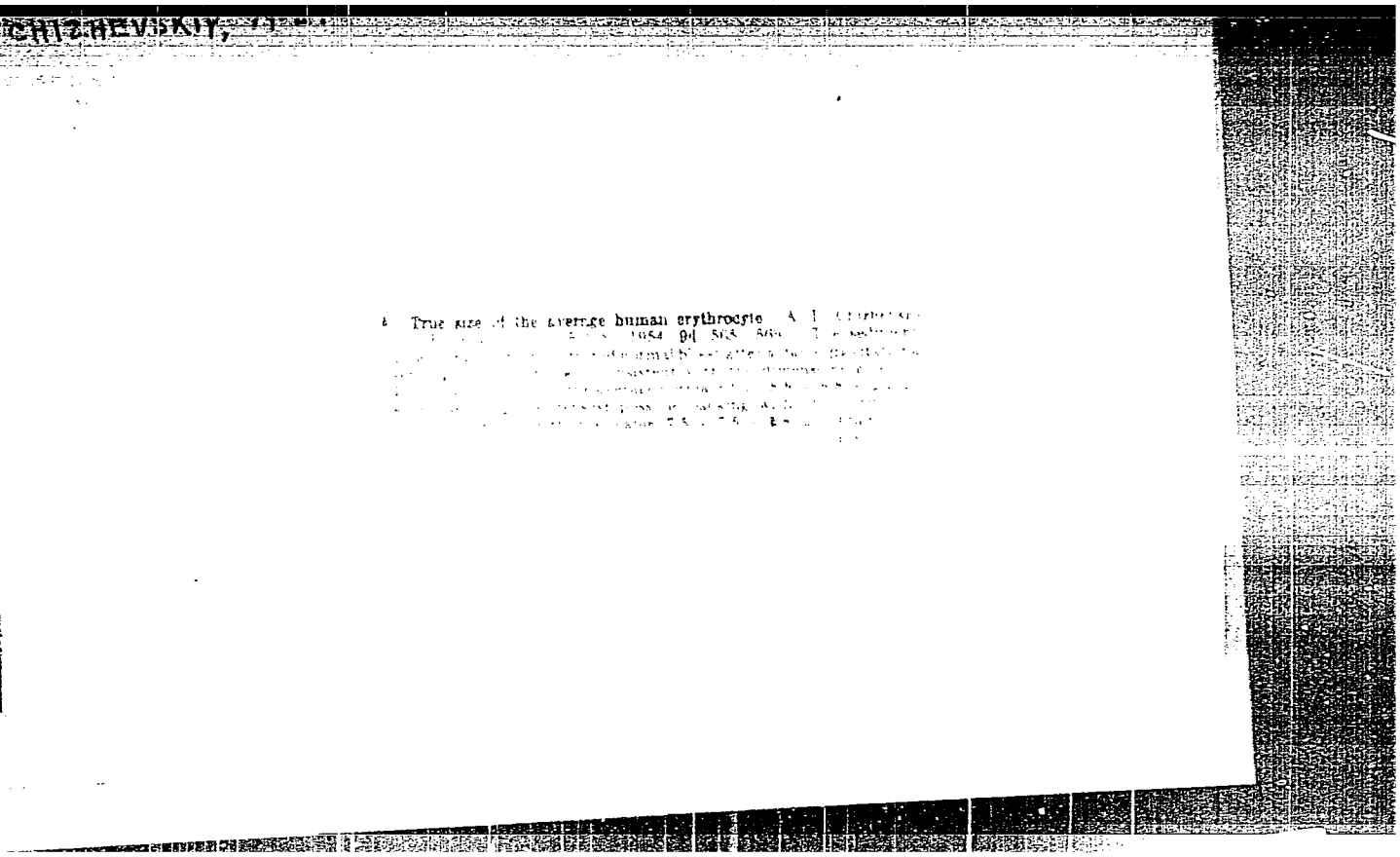
Ionization of the air in buildings. A. L. Chizhevskii. *Vestnik Akad. Nauk Kazakh. S.S.R.* 10, No. 9 (White No. 102), 34–44(1953).—Results of detn. of pos. and neg. ions in the atm. are reported. The outside air is usually significantly high in pos. and neg. ions; the air within buildings is low in neg. ions. Living organisms in a room cause rapid disappearance of the neg. ions. Exhaled air (human) contains predominantly pos. ions of relatively high mol. wt.; these can hinder normal gas exchange in respiration and produce the effect of stuffy feeling in occupied rooms; the actual content of CO_2 in such circumstances is not significant. Air that has been completely freed of all ions cannot support animal life beyond a relatively brief period. Modern methods of air-treatment for ventilation do not restore the normal outdoor content of neg. ions. The satisfactory level of neg. ions is above 5×10^4 per ml. G. M. K.

CHIZHEVSKIY, A.L., professor (Karaganda); TIMOFEYEVICH, A.V., zaveduyushchiy; TYSHCHENKO, Z.A., glavnyy vrach.

Electric reaction of the precipitation of red blood corpuscles; preliminary report. Klin.med. 31 no.3:60-63 Mr '53. (MLRA 6:5)

1. Klinicheskaya laboratoriiya khirurgicheskogo otdeletniya Karagandinskoy oblastnoy bol'nitsy (for Timofeyevich). 2. Karagandinskaya oblastnaya bol-nitsa (for Tyshchenko). (Blood--Corpuscles and platelets)

CHIZHEVSKIY, A. L.



4 True size of the average human erythrocyte. A. L. Chizhevskiy.

CHIZHEVSKIY, A.L.; TROFIMOV, G.K.

Possibility of formation of rouleaux in vitro. Biul. eksp. biol. i med. 40 no.11:70-72 N. '55. (MLRA 9:1)

1. Iz Karagandinskoy oblastnoy klinicheskoy bol'nitsy (glavnyy vrach Z.A. Tyshchenko) i Karagandinskoy oblastnoy stantsii perelivaniya krovi (zav. F.L. Nizguretskaya)

(ERYTHROCYTES,
rouleaux, form. in vitro)

CHIZHEVSKIY, Aleksandr Leonidovich, prof.; LEONOVA, A.B., red.; GERASIMOVA, Ye.S., tekhn.red.

[Manual on the use of ionized air in industry, agriculture, and in medicine; instructions on the use of "Soiuzsantekhnika" ionized air installations] Rukovodstvo po primeneniiu ionizirovannogo vozdukha v promyshlennosti, sel'skom khoziaistve i v meditsine; metodicheskie ukazaniia pri pol'zovanii aeroionifikatsionnymi ustanovkami "Soiuzsantekhniki." Moskva, Gosplanizdat, 1959. 55 p. (MIRA 13:6)
(Air, Ionized)

CHIZHEVSKIY, Aleksandr Leonidovich, prof.; KORZHUYEV, P.A., doktor biolog. nauk, otv.red.; TRINCHER, K.S., red.izd-va; ASTAF'YEVA, T.A., tekhn.red.

[Structural analysis of circulating blood] Strukturnyi analiz dvizhushcheisia krovi. Moskva, Izd-vo Akad.nauk SSSR, 1959. 473 p. (MIRA 12:12)

(ERYTHROCYTES)

YAKERSON, Matvey Semenovich; TSYBUL'SKIY, Vladimir Abramovich. Prinimali uchastiye: LABUDIN, I.A.; FEDOROV, Ye.L.; KELLO, I.O.; CHIZHEVSKIY, A.L.; POLENOV, A.N.; NIKITIN, M.N.; IVANOV, I.I.; GEYET, N.V.; FEDOROV, Ye.V.; FEDOSOV, M.G. YEGOROVA, K.I., red.; ONOSHKO, N.G., tekhn.red.

[The "Znamia Truda" Factory; a brief account of the "Znamia Truda" Armature Factory in Leningrad] Znamia truda; kratkii ocherk istorii leningradskogo armaturnogo zavoda "Znamia truda." 1960. 207 p. (MIRA 14:4)

(Leningrad--Factories)

PHASE I BOOK EXPLOITATION SOV/6144

Chizhevskiy, Aleksandr Leonidovich, Professor.

Aeroionifikatsiya v narodnom khozyaystve (Ionization of Air as a Factor in the National Economy). Moscow, Gosplanizdat, 1960. 757 p. Errata slip inserted. 22,500 copies printed.

Eds. (Title page): A. G. Pogosov and F. T. Sadovskiy; Ed.: M. M. Medvedev; Tech. Ed.: A. A. Ponomareva.

PURPOSE: This book is intended for engineers and scientists concerned with problems of air ionization and its physiological effects.

COVERAGE: The book discusses natural and artificial air ionization and its effects on living organisms; particular attention is given to applications for public buildings, industry, farming, and medicine. No personalities are mentioned. There are 1491 references: 676 Soviet, 309 French, 235 German, 200 English, 33 Italian, 16 Portuguese, 8 Spanish, 6 Swedish, 4 Turkish, 3 Latin, and 1 Polish.

Card 1/

CHIZHEVSKIY, A.L., prof.

Ionization of air. Izobr.i rats. no.6:9-12 Je '60. (MIRA 14:2)
(Air, Ionized)

CHIZHEVSKIY, A. L. (Moscow)

"Methodology of studying the sun rhythms of the infectional and other illnesses."

report submitted for the 8th Intl Conf. of the Society for Biological Rhythm, Hamburg, GFR, 9-11 Sep 1963.

CHIZHEVSKIY, Aleksandr Leonidovich, prof.; SOROKO, Ya.I., red.; RAKITIN, I.T., tekhn. red.

[The sun and us] Solntse i my. Moskva, Izd-vo "Znanie," 1963. 47 p. (Novoe v zhizni, nauke, tekhnike. VIII Seriia: Biologiia i meditsina, no.24) (MIRA 17:1)

ACCESSION NR: AT4042719 S/0000/63/000/000/0485/0485

AUTHOR: Chizhevskiy, A. L.

TITLE: Certain microorganisms as indicators of solar activity and predictors of solar flares

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963. Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy* konferentsii. Moscow, 1963, 485-487

TOPIC TAGS: solar flare, bacteria, biological sensor, solar flare detection, solar flare prediction, biological detector, physical solar process

ABSTRACT: Since 1915, a large amount of statistical data has been accumulated which indicates that nerve cells and certain microorganisms are sensitive to solar activity, and particularly to sunspots and solar flares. This relationship was noted during the study of certain epidemic diseases whose activities appeared to be related to the cycle of solar activity. In a number of cases, it was found that sharp rises in the dynamics of epidemics preceded astro-

Card 1/3

ACCESSION NR: AT4042719

physical activity by several days. A sudden rise in mortality from infectious diseases and pathological conditions of the cardiovascular system were found to be strong indicators of subsequent astrophysical activity. A study of the relationship between major epidemics of the late nineteenth and early twentieth centuries indicated a very high degree of corrolation (0.8--0.9) between solar activity and the course of major epidemics. The importance of identifying a sensitive biological reaction which would forewarn of changes in solar activity several days ahead of time became evident in the late 1920's. In 1929, a search for microorganisms sensitive to changes in solar activity was begun. Shortly before the beginning of the World War II bacteria with a 4- to 5-day "warning effect" were found. Apparently, these microorganisms contain substances which are capable of detecting on a molecular or atomic level nuclear processes taking place in the interior of the sun at a time when these processes are not yet evident on the solar surface. These biological detectors of physical solar processes can provide the basis for a warning system of solar emissions several days before these processes can be detected by astrophysical means.

Card 2/3

ACCESSION NR: AT4042719

ASSOCIATION: none

SUBMITTED: 27Sep63 ENCL: 00 SUB CODE: LS

NO REF SOV: 000 OTHER: 000

Card 3/3

APPROVED FOR RELEASE: 06/12/2000 CIA-RDP86-00513R000308910019-0"

FEDYNSKIY, V.V., doktor fiz.-matem. nauk, prof., otv. red.; BALLAKH, I.Ya., red.; PIOTROVSKIY, V.V., kand. geogr. nauk, red.; TARANOV, N.I., red.; CHIZHEVSKIY, A.L., prof., red.; KUMKES, S.N., red.; CHERNYKH, M.P., mlad. red.

[Earth in the universe] Zemlia vo vselennoi. Moskva, Izd-vo "Mysl'," 1964. 490 p. (MIRA 17:10)

CHIZHEVSKIY, N. G.

"Soil Cultivation and Measures Against Weeds in Grassland Crop Rotation," Izd. 2. Chkalovskoye Izd-vo, 1949

CHIZHEVSKIY, M. G.

Chizhevskiy, M. G. and Nemtsov, V. F, "Fight against drought and problems of higher schools of agriculture," Vestnik vyssh. shkoly, 1949, No. 1, p. 27-30

SO: U-3264, 10 April 53 (Letopis 'Zhurnal 'nykh Statey, No. 4, 1949).

CHIZHEVSKIY, M. G.

"The Rotation System of Cultivation," Pochvovedeniye, No. 1, 1949

CHIZHEVSKIY, M. G. (Prof)

"Crop Rotation System of Agriculture," Nauka i Zhizn', No. 3, 1949.

CHIZHEVSKIY, M. G.

35383 Sistema Obrabotki Chernykh Parov Pod Polezashchitnye Lesnye Polosy. Les I Step', 1949, No. 5, S. 13-20

SO: Letopis' Zhurnal'nykh Statey Vol. 34, Moskva, 1949

CHIZHEVSKIY, M. G.

36301

Vydayushiysya uchenyy stalinskoy epokhi-V.R. Vil'yams. (K-10-letiyu so divya smerti) Les i step', 1949, No 6, s 16-20

SO; Letopis' Zhurnal'nykh Statey, No. 40, 1949

CHIZHESVSKII, M.G.

22560 Chizhevskii, M.G. O Travosmesyakh Dlya Polevykh Sevooborotov Zasushlivoi Zony Yugo-Vostoka. Sov. Agronomiya, 1949, No. 7, S. 37-47-

Bibliogr: 15 Nazv.

SO: Letopis No. 30, 1949

CA

15

Agrotechnical basis for the amelioration of solonets under irrigation. M. G. Chizhevskaĭ and K. P. Pak. *Doklady Vsesoyuz. Akad. Sel'sko-khoz. Nauk im. V. I. Lenina* 16, No. 7, 3-9(1951).—Deep plowing brings to surface $CaCO_3$ and frequently also some gypsum; these affect the solonetzic attributes of the surface soil—dispersion as a result of Na in exchange complex—and ameliorate the soil. This system, together with perennial grass culture, has proved to be more effective than surface gypsum applications. J. S. Jolle

Traces of elements in agriculture. J. Wind (Centr. Inst. Landbouwk. Ouderzoek, Wageningen, Holland). *Maandblad Landbouwvoorlichtingsdienst* 8, 223-33(1951).—A general review of the effect of the presence and lack of the following elements in the soil on plant growth and grazing animals: B, Cu, Zn, Mn, Mo, Fe, Co, and I.

I. C. Jurriens

CHIZHEVSKIY, M. G.: KULAKOV, YE. V.

Fertilizers and Manures

Application of organic and mineral fertilizers at the same time. Pochvovedenie, No. 5, 1952.

9. **Monthly List of Russian Accessions**, Library of Congress, October, 1952 ~~1953~~. Unclassified.

CHIZHEVSKIY, M. G.

"Necessary and Valuable Book 'Grassland Crop Rotation on Kuban Collective Farms'," reviewed by N.V.Kotel'nikov, Sov. agron., 10, No.7, 1952

CHIZHEVSKIY,M.G.

Zemledelie s osnovami pochvovedeniia [Agriculture and fundamentals of soil science]. Moskva, Sel'khozgiz, 1953. 440 p.

SO: Monthly List of Russian Accessions, Vol. 6 No. 11 February 1954

CHIZHEVSKIY, M. G.; KOXINSKIY, V. S.

Caucasus, Northern - Soils

Effect of an alfalfa-rye grass mixture on the improvement of soil structure in chernozems of the western part of the Northern Caucasus. Pochvovedenie No. 2, 1953.

9. **Monthly List of Russian Accessions**, Library of Congress, June 1953. Unclassified

1. CHIZHEVSKIY, M.G.; YAKOVENKO, D.P.

2. USSR (600)

4. Graphite

7. Care of perennial grasses in field crop rotation in the central part of the non-chernozem belt, M.G. Chizhevskiy, D.P. Yakovenko, Sov.agron. 11 no. 4, 1953.

9. **Monthly List of Russian Accessions**, Library of Congress, APRIL 1953. Unclassified

CHIZHEVSKIY, M. G.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1954 and 1955. (Sovetskaya Kultura, Moscow, No. 42-44, 27 Feb - 3 Apr. 1954)

Name	Title of Work	Nominated by
Sokolov, N. S. Yarkov, S. P. Chizhevskiy, M. G. Cherkasov, A. A. Shestakov, A. G. Gulyakin, I. V. Peterburgskiy, A. V. Troitskiy, A. N. Luk'yanyuk, V. I. Savzdarg, E. E. Trofimovich, A. Ya. Kuznetsov, V. S. Kudryavtsev, N. Ye. Pronin, A. F. Alekhin, N. V. Sachli, S. N.	"Elements of Farming" (textbook)	Moscow Agricultural Academy imeni K. A. Timiryazev

SO: W-30604, 7 July 1954

The role of humus and microorganisms in nutrition of higher plants under conditions of water and sand cultures. M. G. Chizhevskii and M. M. Dikusar. *Izvest. Timiryazev. Sel'skokhoz. Akad.* 1955, No. 2, 173–92.—Wheat, rye, and corn were grown in soln. and sand culture with and without H_2O-sol. humus or Na humate as compared with Knop nutrient soln. In unsterilized cultures, the humus and Na humate proved to be a pos. factor, especially in the development of a deeper root system. Under sterile conditions the humus substances were inactive. 45 references.

J. S. Joffe

VOROB'YEV, Sergey Andreyevich; YEGOROV, V.Ye.; KISELEV, A.N.; CHIZHEVSKIY, M.G., professor, redaktor; GRACHEVA, V.S., redaktor; VESKOVA, Ye.I., tekhnicheskiy redaktor

[Manual for laboratory work on problems in agriculture] Rukovodstvo k laboratorno-prakticheskim zaniatiiam po zemledeliiu. Izd. 2-oe, perer. Pod red. M.G.Chizhevskogo. Moskva, Gos. izd-vo selkhoz. litry, 1956. 326 p. (MLRA 9:9)
(Agriculture--Study and teaching)

VERBIN, Akim Akimovich, professor; KVASNIKOV, V.V., professor; KLECHETOV, A.N., professor; CHIZHEVSKIY, M.G., professor; GRACHEVA, V.S., redaktor; YEGOROV, V.Ye., spetsredaktor; PEVZNER, V.I., tekhnicheskiy redaktor

[Agriculture] Zemledelie. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 270 p. (MLRA 10:1)
(Agriculture)

Country : USSR
Category: Soil Science. Tillage. Reclamation. Erosion.

J

Abs Jour: RZhBiol., No 18, 1958, No 82145

Author : Chizhevskiy, N.G.
Inst : Moscow Agricultural Academy
Title : Correct Soil Treatment in Crop Rotations Within the Basic Soil-Climatic Zones of the USSR

Orig Pub: Dokl. Mosk. s.-kh. akad im. KA. Timiryazeva, 1956, 1, No 26, 5-12

Abstract: No abstract.

Card : 1/1

Abs Jour: Referat.Zh.Biol., No. 16, 25 Aug, 1957, 69058.

Abstract: the water runs off on frozen ground, which is most stable to erosion processes. The liquid flow when the snow was blackened consisted of 752 T/hectare from a total reserve of 835.4 T. In the first instance, of the total reserve, 241 T/hectare was absorbed by the soil--in the second instance, 230 T. Over the area where the blackening of snow took place in 1952 the soil wash-out was less by 1.33 m^3/hectare or 22.2% than in the control section. The counter-erosional role of snow barriers consists in accumulation of such soil parts as are washed down from the upper layers of the incline. It is recommended that the barriers be placed on the bends of the slope in such places where streamlets are formed. Each barrier on the bends of the slope accumulated on the average 0.641 m^3 of soil, and in other spots of the slope, only 0.374 m^3.

CHIZHEVSKIY, M.G., professor, kandidat sel'skokhozyastvennykh nauk;
POLOVITSKIY, I.Ya., kandidat sel'skokhozyaystvennykh nauk;
ISHIGENOV, I.A., kandidat sel'skokhozyaystvennykh nauk.

Agricultural use of solonets soils in North Kazakhstan Province.
Zemledelie 4 no.6:13-20 Je '56. (MLRA 9:8)
(North Kazakhstan Province--Agriculture)
(Solonets soils)

USSR/Soil Science. Cultivation, Melioration. Erosion J

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58348, by T. I, Karelin

Author : Chizhevskiy M. G., Polovitskiy I., Ishgenov I.
Inst : Not given
Title : Reclaiming of Saline Soils in Northern Kazakhstan

Orig Pub : S. kh. Kazakhxtana, 1956, No 6, 39-43

Abstract : Experimental comparison of the different methods of plowing of saline soils, and the effect of the plowing on the properties of the soil and farm crops was carried out in Mamlyutinskiy Raion, Northern Kazakhstan Oblast in 1953-1955. The experiments were conducted on complex soils: Strongly saline chernozem, suberous, medium laterite, salt bottom. More than 80% of the

Card 1/2

CHIZHEVSKIY, M.G., professor.

Tillage systems in the turf-Podzolic zone. Zemledelie 4 no.11:15-23 N '56. (MLRA 10:2)

(Tillage)

USSR/Cultivated Plants - General Problems M

Abs Jour : Ref Zhur Biol., No 12, 1956, 53511

Author : Chizhevskiy, M.G.

Inst : Moscow Agricultural Academy imeni K.A. Timiryazev

Title : Agrotechnical Foundations of the Agricultural System in the South-east of USSR

Orig Pub : Dokl. Mosk. s.-kh. akad. im. K.A. Timiryazeva, 1956, vyp. 23, 19-23

Abstract : This report briefly examines some erroneous assumptions in the grassland system of agriculture suggested by V. R. Vil'yams.

Card 1/1

Chizhevskiy, Mikhail Grigor'yevich

CHIZHEVSKIY, Mikhail Grigor'yevich, prof.; KISELEV, A.N., dots.; VOROB'YEV, S.A., dots.; YEGOROV, V.Ye., prof.; BALEV, P.M., dots.; YAMNIKOV, A.N., assistent; CHELYSHKIN, Yu.G., red.; GOR'KOVA, Z.D., tekhn. red.

[General agriculture] Obshchee zemledelie. Pod red. M.G.Chizhevskogo. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1957. 357 p. (MIRA 11:2)
(Agriculture)

CHIZHEVSKIY, M.G.

CHIZHEVSKIY, M.G., doktor sel'skokhozyaystvennykh nauk, prof.

Development of the theoretical bases of cropping practices and immediate tasks [with summary in English]. Izv. TSKhA no.4:51-66 '57. (MIRA 11:1)

(Agriculture) (Tillage)

Chizevskiy, M.G.

CHIZHEVSKIY, M.G., doktor sel'skokhozyaystvennykh nauk, prof.

Work results of the V.R. Vil'iams Station of Soil Science and Agronomy [with summary in English]. Izv. TSKhA no.5:7-16 '57. (MIRA 11:1)

(Agricultural research)
(Soil research)

USSR / Soil Science. Cultivation. Improvement. Erosion J-5

Abs Jour : Ref. Zhur - Biologiya, No 17, 1958, No. 77447

Author : Chizhovskiy, M. G.
Inst : Not given
Title : Cultivation of Soil in the Chernozem Zone

Orig Pub : Zemledeliye, 1957, No 5, 13-23

Abstract : Ploughing with a subsoil plough to a depth of 25 ± 5 cm, instead of ploughing at 20-22 cm, increased the harvest of winter wheat by 2-3 c/ha. Cultivation with a plough without a moldboard was less effective than moldboard ploughing. Substitution of ploughing with shallow ploughing by disk tillers significantly decreased the harvest of wheat. Observations were conducted on the southern chernozems of the Novo-Annensk Base in the Stalingradskaya Oblast. -- F. N. Sofiyeva.

Card 1/1

CHIZHEVSKIY, M.G., doktor sel'skokhozyaystvennykh nauk.

Development of theoretical principles for farming systems. Zemledelie 5 no.11:59-68 N '57. (MLRA 10:11)
(Agriculture)

USSR / Soil Science. Physical and Chemical Properties of Soils. J

Abs Jour: Ref Zhur-Biol., No 21, 1958, 95684.

Author : Chizhevskiy, M. G., Rumyantsev, V. I.
Inst : Timiryazev Agricultural Academy.
Title : On the Problem of Conditions for Soil Structuring.

Orig Pub: Izv. Timiryazevsk. s.-kh. akad., 1957, No 5, 91-106.

Abstract: As a result of tests conducted on turf-podzolic soild from different rayons of Moscow Oblast, it is clear that soils of average clay mechanical composition are structured within one year under the effect of perennial grasses. Soils of dusty-heavily clay and dusty-clay mechanical composition are structured after 3 annual crops of perennial grasses. The water permeability of the

Card 1/2

USSR / Soil Science. Physical and Chemical Properties of Soils. J

Abs Jour: Ref Zhur-Biol., No 21, 1958, 95684.

Abstract: aggregates is greatest with a humidity of the soil of about 50% of the capillary moisture capacity. Aggregates prepared with lime are noted for less water stability, which can be explained by the activization of vital activity of the aerobic bacteria that destroy the organic substance. With fluctuations of moisture from 50 to 20%, a better combination of aerobic and anaerobic microbiological processes is created, which raises the water stability of the aggregates. -- S. A. Nikitin.

Card 2/2

USSR/Soil Science - Organic Fertilizers. J

Abs Jour : Ref Zhur Biol., No 19, 1958, 86809

Author : Chizhevskiy, M.G.
Inst :
Title : Application of Mixtures of Organic mineral Fertilizers (From the Findings of Research Made of the V.P. Vil'yams Agricultural Soil Station).

Orig Pub : Udobreniye i urozhay, 1957, No 6, 6-15

Abstract : The placement of mixtures of organic fertilizers with P, K, and Ca, and also double mixtures of organic fertilizer with P or Ca gives higher crop yields than the separate placement of these fertilizers; for example, 2 centners pf P_c and 10 centners of peat per 1 hectare in the form of a mixture gave a barley crop gain of 5.6 centners, and with separate placement, a gain of 3.5 centners. The effectiveness of a mixture of small doses of manure and lime with P_c in poor N soils is lower than that of 20 tons

Card 1/2

DOBRYNIN, V.P., prof.; OL'SHANSKIY, M.A., akademik, lektor; YELIN, Ye.Ya., dots.; FAT'YANOV, A.S., prof.; GUBAREV, A.N.; TKACHENKO, P.I., dots.; CHIZHEVSKIY, M.G., prof., lektor; AVDONIN, N.S., prof., lektor; ONUCHAK, A.I., dots.; DUNIN, M.S., prof., lektor; SAVZDARG, E.E., prof., lektor; KREMENETSKIY, N.D., dots., lektor; AVER'YANOV, S.F., dots., lektor; POLUBOYARINOV, I.I., dots.; GUBAREV, A.N., red. izd-va; NAUMOV, K.M., tekhn. red.

[Textbook on agriculture for party schools]Uchebnoe posobie po sel'skomu khoziaistvu dlia partiinykh shkol. Moskva, Pt.1. [Crop farming] Zemledelie. 1958. 397 p. (MIRA 15:1)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya partiynaya shkola. 2. Vysshaya partiynaya shkola pri TSentral'nom komitete Kommunisticheskoy partii Sovetskogo Soyuza (for Dobrynin, Ol'shanskiy, Gubarev, Tkachenko, Chizhevskiy, Avdonin, Onuchak, Dunin, Savzdarg, Kremenetskiy, Aver'yanov). 3. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Ol'shanskiy). 4. Vysshaya partiynaya shkola pri TSentral'nom komitete Kommunisticheskoy partii Ukrainy (for Yelin, Poluboyarinov). 5. Gor'kovskaya Vysshaya partiynaya shkola (for Fat'yanov).
(Agriculture)

VERBIN, Akim Akimovich, prof.; KVASNIKOV, V.V., prof.; KLECHETOV, A.N., prof., CHIZHEVSKIY, M.G., prof.. Prinimalinchastiye: GOLIKOV, A.F., dotsent. GRACHEVA, V.S., red.; SOKOLOVA, N.N., tekhn.red.; FEDOTOVA, A.F., tekhn.red.

[Agriculture] Zemledelie. Izd.2, perer.i dop. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1958. 429 p. (MIRA 12:3)

1. Kafedra zemledeliya Moskovskoy sel'skokhozyaystvennoy akademii imeni K.A.Timiryazeva (for Golikov).
(Agriculture)

CHIZHEVSKIY, M.G., doktor sel'skokhozyaystvennykh nauk, prof.; MAKARETS, I.K., kand. sel'skokhozyaystvennykh nauk.

Single soil format ion process [with summary in English]. Izv. TSKhA no.2:95-108 '58. (MIRA 11:6)
(Soil formation)

COUNTRY : USSR
CATEGORY : Cultivated Plants. General Problems. M

ABS. JOUR. : Ref Zhur-Biologiya, No.4, 1959, No. 15561

AUTHOR : Chizhevskiy, M.G.
INST. : --

TITLE : The System of Agriculture in the Non-chernozem Zone.

ORIG. PUB. : Sovkhoznoye proiz-vo, 1958, No. 3, 21-27

ABSTRACT : No abstract

CARD: 1/1

CHIZHEVSKIY, M.G., doktor sel'skokhozyaystvennykh nauk, prof.; KOROVKIN, [redacted], kand. sel'skokhozyaystvennykh nauk

Effectiveness of liming in acid soils with various amounts of free aluminum [with summary in English]. Izv. TSKhA no. 3:137-152 '58. (MIRA 11:7)

(Lime)
(Soil acidity)
(Aluminum)

CHIZHEVSKIY, M.G., prof., doktor sel'skokhozyzystvennykh nauk.
KOTOVRASOV, I.P., kand. sel'skokhozyzystvennykh nauk.

Utilization of the illuvial horizon of turf-Podzolic soils in connection with deepening of the plow layer [with summary in English]. Izv. TSKhA no.5:83-102 '58. (MIRA 11:11)
(Podzol) (Plowing)

CHIZHEVSKIY, M.G., prof.; MAKARETS, I.K., kand. sel'skokhozyaystvennykh nauk.

Determining depth and frequency of tillage according to soil compactness and structure. Zemledelie 6 no.7:10-18 Jl '58.
(Tillage) (Soil physics) (MIRA 11:6)

PROKOPOV, Petr Yefimovich; CHIZHEVSKIY, M.G., prof., otv.red.; TORKAYLO, I., red.; KALECHITS, G., tekhn.red.

[Technical principles of crop rotations on turf-Podzolic soils of the White Russian S.S.R.] Agrotekhnicheskie osnovy polevykh sevooborotov na dernovo-podzolistykh pochvakh BSSR. Minsk, Gos.izd-vo BSSR. Red.sel'khoz.lit-ry, 1959. 325 p. (MIRA 14:2)

1. Chlen-korrespondent AN BSSR (for Chizhevskiy).
(White Russia--Rotation of crops)

CHIZHEVSKIY, Mikhail Grigor'yevich, prof., doktor sel'skokhoz.nauk; AVAYEV, M.G., dotsent; ZHELTIKOV, S.A., dotsent; KISELEV, A.N., dotsent; PETERBURGSKIY, A.V., prof.; PROKHOVSKIY, M.I., dotsent; OZEROV, V.N., red.; BACHURINA, A.M., tekhn.red.; BALLOD, A.I., tekhn.red.

[Agriculture with principles of soil science] Zemledelie s osnovami pochvovedeniia. Pod red. M.G.Chizhevskogo. Izd.2., perer. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 431 p. (MIRA 13:7)

(Agriculture) (Soils)

CHIZHEVSKIY, M.G., doktor sel'skokhozyaystvennykh nauk, prof.

Tasks of agricultural science and measures for increasing crop yields. Izv.TSKhA no.2:15-24 '59. (MIRA 12:8)
(Agricultural research)

CHIZHEVSKIY, M.G., prof., doktor sel'skokhoz.nauk; DIKUSAR, M.M., kand. biolog.nauk

Effect of different types of natural organic matter on the development of azotobacter and its nitrogen fixing ability. Izv.TSKhA no.3:69-80 '59. (MIRA 12:10)
(Azotobacter)

CHIZHEVSKIY, M.G., prof., doktor sel'skokhozyaystvennykh nauk

Ways of increasing crop yields in the forth coming seven-year plan. Zemledelie 7 no.1:9-14 Ja '59. (MIRA 12:1)

1. Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya imeni K.A. Timiryazeva.
(Field crops)

CHIZHEVSKIY, M.G., doktor sel'skokhoz.nauk; RUMYANTSEV, V.I., kand.sel'-skokhoz.nauk

Basic tillage of Chernozem soils and their cultivation before sowing in the southeast. Zemledelie 7 no.7:19-26 Jl '59. (MIRA 12:9)

1. Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya imeni K.A.Timiryazeva.
(Volga Valley--Chernozem soils)